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| 09/623,464      | 11/17/2000  | Eiji Atsumi          | P108172-0001        | 5571             |

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EXAMINER

DANG, DUY M

ART UNIT

PAPER NUMBER

2621

DATE MAILED: 08/22/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/623,464

Applicant(s)

ATSUMI ET AL.

Examiner

Duy M Dang

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 17 November 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5,9,13,14,17,18 and 20 is/are allowed.
- 6) ☒ Claim(s) 1-3,6-8,10-12,16 and 19 is/are rejected.
- 7) ☒ Claim(s) 4 and 15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-3, 6-8, 10-12, 16, and 19 rejected under 35 U.S.C. 102(a) as being anticipated by Applicant's admitted prior art (page 2 line 5 to page 5 line 18, and figures 1-3).

Regarding claim 1, Applicant's admitted prior art teaches a method of image compression (see page 2 lines 18-21) comprising:

providing digital image data in a computer readable format, said digital image data including data on values and coordinates for a plurality of pixels (see page 2 lines 15-24. This text portion describes the computer software performs storing image data as an two dimensional array representing a plurality of pixels);

selecting a region of interest of an image represented by said digital image data (see page 2 lines 24-26 in together with figure 2. This cited portion describes the selection of an image portion having the most important information);

sorting (see "sorting pass" shown in figure 3, detailed in figure 2 and mentioned in page 4 line 7), and prioritizing said digital image data according to at least two priority categories, with digital image data corresponding to the regions of interest having a higher priority than digital image data corresponding to areas outside of the region of interest (i.e., "the most important information is selected by determining significant/insignificant elements with respect to a given threshold utilizing subset partitioning" mentioned in page 2 lines 24-26 and figure 2); and

Art Unit: 2621

transmitting said sorted and prioritized digital image data to a remote location, with digital image data corresponding to the regions of interest having a higher priority than digital image data corresponding to areas outside of the region of interest (see “selects the most important information to be transmitted” mentioned in page 2 lines 27-28. Also see page 3 lines 15-18).

Regarding claim 3, the Applicant’s admitted prior art further teaches reconstructing the transmitted digital image data comprising a decoder (see “provide high quality reconstructed images utilizing a small fraction of the transmitted pixel coordinates” mentioned in page 3 line 23-24, the “decoding occurs in a same but reversed fashion” mentioned in page 4 line 29).

The advanced statements with applied to claim 3 above are incorporated herein. Regarding claim 2, Applicant’s admitted prior art further teaches remote location (see “network transmission” mentioned in page 2 line 8. This interpretation is consistent with Applicant’s disclosed remote location in page 14 lines 27-29).

Regarding claim 6, it is noted that this claim recites the same features called for in the method claim 1 with addition of display. The advanced statements as applied to claim 1 above are incorporated herein. While the Applicant’s admitted prior art does not teach a display, the Applicant’s admitted prior art does teach a general computer having computer software for performing image compression/decompression (see page 2 line 15-18 and page 4 line 29), and a user desired selection (see page 3 lines 24-26). Thus, the so called “display” is inherently included in Applicant’s admitted prior art in order for the user to make a desired selection number of bits properly.

Regarding claim 7, it is noted that this claim recites the same features called for in claim 2 above. Thus claim 7 is rejected for the same reasons as set forth in claim 2.

Regarding claim 8, it is noted that this claim recites the same features called for in claim 3 above. Thus claim 8 is rejected for the same reasons as set forth in claim 3.

Regarding claim 10, it is noted that this claim recites a computer program embodied on a computer readable medium comprising the features called for in claim 6. Thus, the advanced statement with as applied to claim 6 above are incorporated herein. The Applicant's admitted prior art further teaches a computer program embodied on a computer readable medium as mentioned in page 2 lines 15-21 (note that the so called "computer readable medium" is inherently included in the general purpose computer in order for the software to be loaded and running).

Regarding claim 11, it is noted this claim recites a computer program embodied on a computer readable medium comprising the features called for in claim 2. Thus, the advanced statements as applied to claims 2 and 10 are incorporated herein.

Regarding claim 12, it is noted this claim recites a computer program embodied on a computer readable medium comprising the features called for in claim 3. Thus, the advanced statements as applied to claims 3 and 10 are incorporated herein.

The advanced statement as applied to claim 2 above are incorporated herein. Regarding claims 16 and 19, Applicant admitted prior art further teach that remote location is a location on the internet (see "network transmission" mentioned in page 2 line 8).

Art Unit: 2621

3. Claims 4 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 4, the Applicant's admitted prior art does not teach the features of "wherein said sorting and prioritizing of said digital image data comprises shifting bits of transform coefficients corresponding to the digital image data by a predetermined amount, said predetermined amount corresponding to a desired scale-up rate for reconstruction of the regions of interest."

Regarding claim 15, the Applicant's admitted prior art does not teach the features wherein the regions of interest is reconstructed at a faster rate than the digital image data corresponding to areas outside of the regions of interest, said faster rate being provided by said sorting and prioritizing of said digital image data corresponding to the region of interest.

4. Claims 5, 9, 13-14, 17-18, and 20 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claim 5, the Applicant admitted prior art does not teach a method for encoding and decoding an image comprising the features of: modifying the sorting of the digital image based upon the selected regions of interest, wherein digital image data corresponding to the region of interest is sorted and prioritized to have a higher priority than the digital image data corresponding to areas outside of the region of interest and in combination with other features recited in claim. Claims 17-18 are also allowed as being depend from claim 5.

Art Unit: 2621

Claim 9 recites a system for encoding and decoding an image comprising the same features called for in claim 5. Thus, claim 9 is also allowed for the same reasons as set forth in claim 5 above. Claim 20 depends from claim 9 and is allowed for the same reason as well.

Claim 13 recites a computer program embodied on a computer medium comprising the same features called for in claim 5. Thus, claim 13 is also allowed for the same reasons as set forth in claim 5 above.

Regarding claim 14, the Applicant's admitted prior art does not teach the features of: modifying the sorting of the digital image based upon the selected regions of interest, wherein digital image data corresponding to the region of interest is sorted and prioritized to have a higher priority than the digital image data corresponding to areas outside of the region of interest and in combination with other features recited in claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shapiro (US Patent No. 5,412,741) is an example of image compression.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duy M Dang whose telephone number is 703-305-1464. The examiner can normally be reached on Monday to Thursday from 6:30AM to 5:00PM..

Art Unit: 2621

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo H Boudreau can be reached on 703-305-4706. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.

dmd  
8/14/03

A handwritten signature in black ink, appearing to read 'Duy M. Dang', with a stylized, flowing script.

Duy M. Dang  
Patent Examiner